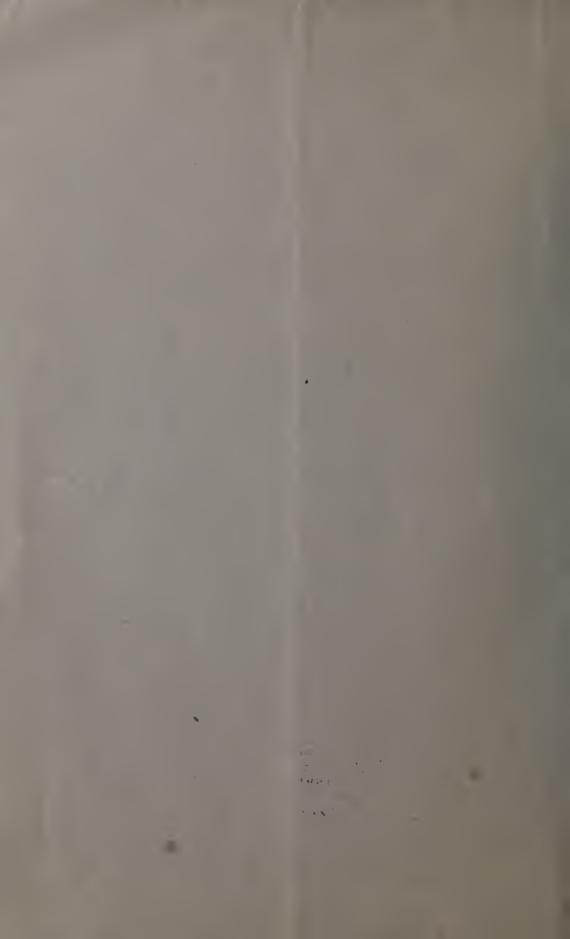
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# SAMUEL STEHMAN HALDEMAN

A MEMOIR

BY CHARLES HENRY HART



# MEMOIR

OF

# SAMUEL STEHMAN HALDEMAN LL D

Professor of Comparative Philology

IN THE

## UNIVERSITY OF PENNSYLVANIA

## By CHARLES HENRY HART

HISTORIOGRAPHER OP THE NUMISMATIC AND ANTIQUARIAN SOCIETY OP PHILADELPHIA LIFE MEMBER OF THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA CORRESPONDING MEMBER OF THE MASSACHUSETTS HISTORICAL SOCIETY ETC ETC ETC ETC ETC ETC

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#### SAMUEL STEHMAN HALDEMAN.

THE writer of the following memoir had occasion to prepare a brief necrology of the late Professor Haldeman, soon after his lamented death, for one of the learned societies with which he was connected. In looking for material for the purpose, he was met with an *embarras des richesses*, which, owing to the limits then imposed upon him, he could not use; but deeming the matter thus gathered of too much importance to be lost, he has employed it in the preparation of the following pages.

Samuel Stehman Haldeman, was born August 12th, 1812, at Locust Grove, Lancaster County, Pennsylvania, a family homestead situated on the eastern bank of the Susquehanna River, twentymiles below Harrisburg. He was descended, in the seventh generation, from Honeste Gaspard Haldimand (Caspar Haldeman, German spelling,) of Thun, Switzerland, who became a citizen of Yverdun, Canton de Vaud, in 1671. His grandson, Jacob, born October 7th, 1722, in a canton of Neufchatel, died December 31st, 1784, in Rappo township, Lancaster County, Pennsylvania, where he settled on first coming to this country and purchased a considerable tract of land. He adopted the German method of spelling his name, doubtless out of a desire for kindly feeling among his neighbors-that section of the State being settled almost exclusively by Germans—and took an active interest in the affairs of the colony, being chosen a member of the Committee of Public Safety for his adopted shire, on the breaking out of the war of the Revolution. The eldest brother of Jacob Haldeman, was the noted British general Sir Frederick Haldimand, K. B., who, after serving with distinction in the armies of Sardinia and Prussia, entered the military service of King George in 1754, was appointed Lieutenant Colonel of the Sixtieth Regiment Royal Americans, January, 1756, and the next year was despatched to America, which was to be the field of his future service, and where, prior to the Revolution, he made frequent visits to his brother in Lancaster county. Early in 1776, he was commissioned a General in America, and subsequently became Commander in Chief of his Majesty's forces, succeeding Guy

Carleton, Lord Dorchester, as Governor of the Province of Quebec, when he received the honor of knighthood, May 19, 1778. Headministered this office until the close of 1784, when he returned to England and died at his native Yverdun, June 5, 1791, in his seventy-third year. A tablet has been erected to the memory of General Haldimand, in Westminster Abbey, in the Chapel of Henry VII.

A niece of Jacob and Sir Frederick, was Mrs. Marcet, the celebrated scientific writer, who was Jane Haldimand, before she married Dr. Alexander Marcet. It seems as if this distinguished woman, whose name is almost unknown to the general reading public of to-day, should not be passed by unnoticed, especially in view of the fact that her kinsman, who is the special subject of this memoir, followed in some respects closely upon her footsteps. Mrs. Marcet was the first writer to attempt to popularize science, by the publication of her Conversations on Chemistry, Natural Philosophy, Botany, Mineralogy, Language and Political Economy. Macaulay said of the last of these works, "Every girl who has read Mrs. Marcet's little dialogues on Political Economy, could teach Montague or Walpole many lessons in finance;" and Faraday, gleaned his first knowledge of science from the book which heads the list. In long after years, when speaking of what he owed to this remarkable woman, Faraday wrote, "When I questioned Mrs. Marcet's book by such little experiments as I could find means to perform, and found it true to the facts as I could understand them, I felt that I had got hold of an anchor in chemical knowledge, and clung fast to it. Thence my deep veneration for Mrs. Marcet-first, as one who had conferred great personal good and pleasure on me; and then as one able to convey the truth and principle of those boundless fields of knowledge which concern natural things to the young, untaught, and inquiring mind. You may imagine my delight when I came to know Mrs. Marcet personally; how often I cast my thoughts backward, delighting to connect the past and present; how often, when sending a paper to her as a thank-offering, I thought of my first instructress, and such thoughts will remain with me."

Jacob Haldeman's son John (1753-1832) settled at Locust Grove, which in turn became the property of his eldest son, John Breneman Haldeman (1779-1836), from whom it passed to his fourth son, Henry Haldeman (1787-1849), who married Frances Stehman (1794-1826), and was the father of the subject of our notice. Samuel

Stehman Haldeman was the eldest of seven sons and as a boy developed great fondness for investigating nature. This taste was promoted by the encouragement he received from his estimable father, who was a bookish man and proud of the bent so early When a mere child he developed in the mind of his eldest son. formed a museum of specimens in natural history and aboriginal stone implements, gathered in the vicinity of his home, which he located in the loft of the family carriage-house. Until the age of thirteen he attended the local schools in the neighborhood, receiving such elementary groundwork as they were capable of affording. At this early age he had the misfortune to be deprived of a mother's care, but not until she had given him, through her superior musical acquirements, that correct ear for the notation of sound which made him in after life such a capable phoneticist, and enabled him to form such accurate judgments in that branch of philology which he made his special study.

In the fall of 1826, when in his fiftcenth year, he was taken to Harrisburg, and placed under the care of Dr. John Miller Keagy. who, having relinquished the practice of medicine, opened, at this time, a classical school, taking a few attendants, as boarders, into his family; among them young Haldeman and Andrew G. Curtin. Haldeman remained with Dr. Keagy for two years, and the intimate relations thus begun between teacher and pupil were cherished and preserved during the remaining brief years of the teacher's life; while the pupil tenderly showed his appreciation for the character and ability of his early friend, by several tributes to his memory, preserved respectively in Mombert's History of Lancaster County, Pa., 1869; Barnard's Journal of Education, 1871; and the Pennsylvania School Journal, 1875. He speaks of him as a "great teacher" and says "besides the classical languages, Dr. Keagy knew Hebrew, German and French. He had a taste for the natural sciences, and in the absence of class books he taught orally in an excellent conversational style." From Dr. Keagy's school young Haldeman entered Dickinson College, Carlisle, Pennsylvania, where his fondness for the natural sciences was fostered and advanced by his intercourse with the highly accomplished Professor Henry D. Rogers, one of the faculty.

Feeling trammelled, however, by the routine progress of a college course, he left Carlisle at the close of his second year and returned to his home. Here, he spasmodically assisted his father in the saw-milling business, but he found this less to his taste even than college life had been. Restraint of any kind seemed unbearable, as it was intolerable, to his active mind: he felt that he must follow the bias of his own inclination or stand still. With this \* nature and a mind so organized, it is fortunate that the broad acres of science attracted him, for here was a field open on every side, where he could roam and burrow and plough as he would. He eagerly availed himself of the favorable opportunities for the observations of nature, afforded him by the situation and surroundings of his paternal home. From an itinerant Methodist preacher, he had early acquired some knowledge of the method of preparing zoological specimens, and at once exercised his art upon rabbits, possums, muskrats and other animals, which he stuffed and placed in his amateur collection. With a view also of preparing himself more completely for the study of the natural sciences; he attended a course of lectures at the medical department of the University of Pennsylvania, during the winter of 1833-34, but without any design of becoming a physician.

In 1835, Mr. Haldeman was married, by the Rev. H. B. Shaffner, to Miss Mary A. Hough, of Bainbridge, Pa., a direct lineal descendant of "John Hough, yeoman of Hough, County Chester, England, and Hanna his wife, who arrived in the river Delaware in the 9th mo. 1683, in the ship 'Friendship,' master, Robert Crossman." This lady was in every way fitted to be the helpmeet to a man of Dr. Haldeman's temperament, and it is a pleasure, as well as our privilege, to acknowledge the indebtedness we are under to Mrs. Haldeman, for the generous aid she has given us in the preparation of this memoir. Shortly after his marriage, Dr. Haldeman removed to Chickies, Pa., and took up his residence in the spacious mansion which he subsequently occupied through life, and which he named Chicquesalunga, the Indian name of the place. Here, later, he was joined by two brothers, Dr. Edwin and Paris Haldeman, and the three associated together in the manufacture of iron. As might be expected, Dr. Haldeman did not personally take any active management of the business during the many years of its continuance, but devoted himself to its theoretical advantage, where his chemical knowledge became of marked use. In this connection he wrote for a number of Silliman's Journal a paper on the Construction of Furnaces to smelt Iron with Anthracite, and in another gave The result of smelting Iron with Anthracite, while in 1855, he published a revised edition of Taylor's Statistics of Coal.

The year of his marriage, Dr. Haldeman, also, made his first appearance as an author, contributing to the Lancaster Fournal, an article in refutation of Locke's Moon Hoax. To understand the true importance of this subject, we must step back nearly half a century and look at the question, as it first presented itself for consideration, without the help of subsequent development. It will be remembered that Richard Adams Locke, the editor of the New York Sun, published in the columns of that daily paper, in several successive issues, in August and September, 1835, the Extraordinary Discoveries in the Moon by Sir John Herschell at the Cape of Good Hope, purporting to be copied from a "Supplement to the Edinburgh Journal of Science," in which it was pretended that, with a telescope twenty-four feet in diameter, animals had been observed moving in the moon. It can readily be imagined the intense excitement the report of such a wonderful discovery would universally create, and the report was written with such infinite ability and couched in language so alluring, that it was well calculated to deceive an unsuspecting public. The press all over the country teemed with communications for and against the truth of the discovery, and the demand for the original report became so great, that the proprietors of the journal had an edition of sixty thousand, published in pamphlet form, which was sold off in less than a month. The following extract will give an idea of Dr. Haldeman's handling of the subject, and shows the searching scrutiny he from the first brought to bear upon the investigation of scientific subjects. "The magnifying power of the new telescope is said to be 42,000 times, and capable of distinguishing objects of a few inches in diameter on the lunar surface. Now this power is much too great for an instrument twenty-four feet in diameter, and still not great enough to distinguish objects of eighteen inches. The unassisted eye, when viewing the moon, can distinguish a spot of about seventy miles, and of course with a telescope magnifying seventy times, one mile of lunar surface would just be visible. According to the rule for calculating the power of telescopes, it would require a magnifying power of 37,000 to distinguish ten feet of lunar surface, and a lens to produce this power could not be less than sixty feet in diameter,

with a focal distance of three hundred feet. From this we may judge to what an extent the powers of a twenty-four foot diameter telescope, have been overrated."

He now yearned for that opportunity for investigation, which his amateur researches and explorations in several departments of natural science, had given the foretaste; and upon making his wishes known to his old preceptor, Prof. Rogers, then in charge of the geological surveys of New Jersey and Pennsylvania, he was appointed in 1836, an assistant in the former, and the following year was transferred to a similar position in the latter. His field of operation was that part of the State, lying between the Blue Mountain and the South Mountain, from the Delaware to the Maryland line; the most important division in the State, owing to the intricacy of the geology of the section. While engaged in this occupation he discovered the Scolithus linearis, a new genus and species of fossil plant, and the most ancient organic remains found in Pennsylvania, upon which he published a monograph in 1840. During his explorations, being in the vicinity of Hummelstown, he recollected the extravagant description given in Guthrie's Geography, which had been given to him when a boy by his grandfather Haldeman, who was a subscriber to Carev's first American edition of 1794, of the cave on the Swatara. Upon visiting the place he discovered the main cave, previously unknown, by climbing to a small hole into which he crept, and found a descent, where a rope was required to reach the floor. In the apartment thus entered for the first time, every delicate stalactite was perfect; there was not a footprint on the soft clay floor, and the bones of bats were the only signs of prior occupants.

As he has, himself, said, "I collected shells on the banks of the Susquehanna long before I knew the meaning of genus and species;" so his first important treatise was in the attractive department of conchology. In July, 1840, he issued the first number of his Freshwater Unwalve Mollusca of the United States, which was completed in nine parts, the final number not appearing until 1866, although the title page bears the imprint, 1845, when the text and plates were ready for the press. This monograph was well received and the Revue Zoologique, of Paris, commended it as "very well done in a scientific point of view, and perfec.ly executed in regard to the plates and typography." The correctness of this criticism, upon

the forty plates at least, can well be appreciated when we state that they were all engraved by Alexander Lawson, who produced the beautiful plates for Wilson's Ornithology, from drawings made by his accomplished daughter, Miss Helen A. Lawson, who also colored the illustrations from the natural objects. The complete volume has for embellishment, beside those necessarily belonging to the text, a portrait of the author and a view of his home, Chicquesalunga. As may readily be conceived from the desultory manner of publication, this work complete has become exceedingly difficult to obtain, and copies have brought, it is reported, as high as twenty five and thirty dollars. While he was issuing this work he projected another serial, to which he gave the general title of Zoologi-Three numbers only were issued; in 1842, On cal Contributions. some American Species of Hydrachnidæ; in 1843, On the impropriety of using vulgar names in Zoology, and in 1844, On the Arrangement of Insect Cabinets, with a view to indicate the geographical position of the species by colored labels, a plan which, we believe, has been universally adopted.

From his first appearance as a writer upon natural history, Dr. Haldeman seems never to have been idle, and Agassiz, in his Bibliographia Zoologicæ et Geologicæ, 1852, enumerates no less than seventy-three separate titles from his pen as having appeared up to that date. The majority of these papers were published in the Journal or the Proceedings of the Academy of Natural Sciences of Philadelphia: The Boston Journal of Natural History; Silliman's Journal of Arts and Sciences; The Transactions or the Proceedings of the American Philosophical Society; The American Journal of Agriculture, and the Proceedings of the American Association for the Advancement of Science: and are principally upon one or the other of his, up to that time, favorite subjects,—entomology or conchology. In addition to these, however, he wrote for Trego's Geography of Pennsylvania, 1843, outlines of the Zoology of the State, covering the ground, in so short a space, very fully; for Rupp's History of Lancaster County, Pennsylvania, 1844, a sketch of the Natural History, including the geology, of the county; for Dr. Chenu's magnificent folio, Illustrations Conchyliologiques, Paris, 1847, a Monographie du genre Leptoxis, with one hundred and seventy colored figures, and for the American edition of Heck's Iconographic Encyclopædia, 1851, edited by the present able Secretary of the Smithsonian Institution, Professor Spencer F. Baird, Zoology of the Invertebrate Animals.

Beside the investigations and discoveries in the natural sciences by Dr. Haldeman, that have already been mentioned, he was the first to record that the peregrine falcon nests in rocks, as in Europe, and not in trees, as Wilson and others had supposed; and also that the American eagle is a fishing eagle, and when he cannot rob the fish-hawk, will dive after the fish for himself. These two observations he had made when yet quite young, as he had secured young falcon from the nest in the cliff (Chickies Rock,) which rises behind his late residence, and from his father's house, had watched the manœuvres of an eagle who had a nest in a large buttonwood tree, on an island, about a mile distant. He also found and described a new species of tralobite in Pennsylvania, which he presented to his friend, the distinguished paleontologist of New York, Professor James Hall, who named it, in honor of the discoverer, Froctus Haldemani.

Dr. Haldeman very early took a deep interest in the languages of the North American Indians, and as an aid to the study of ethnology, he now devoted his attention to the science of language in general; and doubtless it will be as a learned and accurate philologist that his labors will be best remembered. His investigations in this most interesting study, were not directed so much to the origin and source of language, as to rendering it facile of acquirement and expression—his specialty being, the notation of the elementary sounds uttered by the human voice in speech; thus reaching the form of language, which is merely the peculiar method of uniting thought with sound. He had carefully considered the phoneticism, or manner of pronunciation, of several of the Indian tribal languages, before committing his views to print, and so thoroughly had he done this, that his first noticeable contribution to the science of philology, was accepted for publication in the Proceedings of the American Academy of Arts and Sciences, at Boston, for October, 1849. It was entitled "Some Points in Linguistic Ethnology, with Illustrations Chiefly from the Aboriginal Languages of North America," and had for its basis the recently published Essentials of Phonetics, containing the Theory of a Universal Alphabet, by the well-known phonologist, Alexander John Ellis, of Trinity College, Cambridge. Dr. Haldeman's paper was prepared with

much judgment and showed the result of his long, careful study of the sounds of the human voice, and which he brought to bear with great pungency upon the theories advanced by Mr. Ellis. In the course of his inquiries into the phonetic peculiarities of the native Indian languages, Dr. Haldeman frequently found himself at a loss to record his results, from the want of a proper alphabet, and resolving to use the Latin alphabet, strictly according to its Latin signification, he determined first to carefully investigate its fitness for the purpose, by ascertaining the correct ancient pronunciation. This special inquiry resulted in the publication of his Elements of Latin Pronunciation, 1851, which received a warm and universal welcome both at home and abroad, and appeared in a second edition twenty-two years later. This was followed in 1853, by Investigation of the Power of the Greek Z, by means of Phonetic Laws, and in 1856, by a monograph On the Relations between Chinese and the Indo-European Languages, and a Report to the American Association for the Advancement of Science On the Present State of our Knowledge of Linguistic Ethnology, in which he specially points out the unphilosophic principles of Professor Lepsius's lately published Standa d Alphabet for Reducing Unwritten Languages and Foreign Graphic Systems to a Uniform Orthography in European Letters.

The studies which resulted in the preceding publications, together with his lectures on the Mechanism of Speech, before the Smithsonian Institution, prepared Dr. Haldeman, to compete for the prize of £100 offered by Sir Walter Trevelyan, President of the Phonetic Society of Great Britain, for the best essay "On a Reform in the Spelling of the English Language, to contain among other features an Analysis of the System of Articulate Sounds—an Exposition of those occurring in English—and an Alphabetic Notation, in which as few new types as possible should be admitted." There were eighteen essays submitted in competition, all by learned European philologists, excepting Dr. Haldeman, and none of them, in the opinion of the judges appointed to decide upon their merits, came up fully to the conditions of the offer. But the judges specially commended the essay with the motto, "Fiat justitia ruat cælum" and the founder of the prize, himself an accomplished philologist, decided to give half the amount to the writer of this essay and the balance on his undertaking to revise, complete and publish it. The commended essay was the work of the subject of this notice, and under date of December 3, 1855, he wrote "To the Adjudicators upon the Essays placed in competition for the Trevelyan Prizes." "As I accede to the desire of the learned and noble donor that my competing essay should be revised, completed and published, I am desirous of having notes and suggestions from any of you, to enable me to form an idea of the principles upon which you would have liked to see such an essay formed." To prepare himself more thoroughly for the work, Dr. Haldeman made four months' tour on the Continent, "searching phonetic material and confirming or correcting former impressions." He returned home in July, 1859, and immediately prepared his Prize Essay for the press, which appeared in the spring of 1860, with the title Analytic Orthography: an Investigation of the Sounds of the Voice and their Alphabetic Notation; including the Mechanism of Speech and its bearing upon Ety; ology. In forwarding the presentation copies to the donor and adjudicators he writes, "My notation being based on more rigid principles than the alphabets hitherto proposed, will probably be viewed with as much distrust by those who have heterotypic prejudices, as the gait of a European woman would be regarded by a Chinese lady. But whatever merit may be conceded to the general treatment of the Essay, I assure you that as much consideration has been given to the notation as to the general subject; so that if the reader has reason to believe me wrong on this point, he has a just ground to suspect the validity of the entire system; and contrariwise, in proceeding in the proper order from the system to the notation."

Dr. Haldeman, in this treatise, lay's down six canons of notation as the basis of a true phonetic orthography. I. "Every simple sound or element should have a single letter to represent it." II. "No letter should represent more than one sound." III. "Sounds made by one contact of the organs of speech are not to be represented by a letter made to represent a sound belonging to a different contact." IV. "The group of letters representing a distinct word, is to be separated by spacing from preceding and succeeding groups and the order of Latin typography is to be preserved," V. "The Latin alphabet should be the basis, each letter being used in its Latin sense and restricted to the sound it was made for." VI. "When a sound unknown to Latin has arisen,

it should be provided with a new or modified character." importance of phonology and the necessity for a philosophical and scientific basis, for the construction of a general alphabet to record an unwritten language, rather than leave it to the vagaries of each individual who may be called upon to write it for the first time, will be admitted at once upon reflecting that all language is in its normal state unwritten and has to be first expressed in some characters which will, as nearly as possible, represent the normal sound. The first five rules laid down by Dr. Haldeman, seem well calculated to assist in overcoming many of the impediments presented to those endeavoring to record unwritten tongues, but they present the common difficulty, found in most of the similar systems, in requiring too varied a knowledge and too great nicety for general practical use. Dr. Haldeman's sixth rule, however, is open, not only to the serious objection of uncertainty, but also to the far greater one of introducing new characters into the alphabet, when none but Roman letters should be used. The attempted introduction of new characters into our written language by the so-called "Spelling Reformers," will be one of the principal hindrances to the acceptance of certain modifications in spelling, which could and should be made. But of this subject, more anon.

During the next five years, following the publication of the Trevelyan Prize Essay, Dr. Haldeman was not idly resting on the laurels he had won, although in this period nothing of importance proceeded from his pen. But he was at work, hard at work, and in 1865, he published, what is probably the most generally useful of all his philological works: Affixes; in their Origin and Application exhibiting the Etymologic Structure of English Words, a revised edition of which appeared in 1871. The labor of preparing such a book as this must have been simply enormous, and if Dr. Haldeman is correct, that there are not three hundred roots in any language, the value and importance of a knowledge of the affixes—prefixes and suffixes—which give form and meaning to the whole body of English words, can readily be seen and appreciated, as the only true means of correctly understanding a language is to trace all words to their fountain source, the original derivation. This work was earnestly welcomed by the most competent authorities in Europe and in this country. A writer, in the Contemporary Review, says of it "Mr. Haldeman has compressed in an elegantly printed octavo volume a collection more rational, complete and exhaustive of the component parts of our language than we have had any good right to hope for within the present century."

When the formation of an American Philological Association was suggested, Dr. Haldeman, as might be expected, was foremost in the ranks of the founders, being enrolled at the first meeting held, in July, 1869, at Poughkeepsie, N. Y. From this time until his death he was most active in its proceedings, being First Vice-President 1874-1876 and President 1876 77. To its published volumes of Transactions, he contributed many papers, the first being on the German Vernacular of Pennsylvania. This curiously interesting language, he afterwards made the subject of extended examination, at the request of the Philological Society of London, the result appearing in 1872, with the title Pennsylvania Dutch: a Dialect of South German with an impression of English. Dr. Haldeman's last published philological work, Outlines of Etymology, was issued in 1877, in the preface to which, he states his object to be "to teach etymology as other sciences are taught." An elaborate review of this volume will be found in the PENN MONTHLY for March 1878. Dr. Haldeman was one of the earliest movers for spelling reform in this country. "He was a member in 1875" writes Professor F. A. March, of Lafayette College, "of the first committee raised by the American Philological Association to consider the reform of English spelling. He presided at the 'International Convention in behalf of the Amendment of English Orthografy' held at Philadelphia in July 1876, and took a leading part in shaping its proceedings. At this Convention the Spelling Reform Association was organized, and Dr. Haldeman was one of the Vice Presidents. He was also one of the Committee on the alfabet and on new spelling. He was a regular attendant at all accessible meetings of the Association, often presiding, always contributing papers and making the discussions lively by constant timely comment, lerned trenchant and mirth-provoking. He also contributed freely with pen and money to the advancement of the cause in every direction. His address to the American Philological Association at the close of his presidency of that Association in 1877, was devoted mainly to this reform. Several of his papers ar printed in the Proceedings and Bulletins of the Spelling Reform Association. He was strongly in favor of pushing for the thoroadoption of the Continental values of our letters." That some change in the present cumbrous system of spelling is desirable, there can be no doubt. But how is it to be accomplished? To be universally accepted, it must be based upon some immutable standard. But what shall that standard be? If any rule of pronunciation could be absolutely fixed, then that the spelling should follow the sounds of the voice in correctly uttering words, would seem the most rational and wise. But is this phonetic method practicable? It seems to us that there are two great stumbling-blocks in the way of introducing phonetic spelling, for popular and general use. It takes a very delicate and carefully trained ear, to discriminate nicely all the varying and distinct sounds the human voice is capable of making, and even although the ear may detect them, the voice, from the very nature of the vocal organs, cannot always reproduce them. This undeniable fact, among adults at least, produces a diversity of pronunciation. Especially is this noticeable in the different vowel sounds and can readily be observed in adult attempts to study a foreign tongue. If such then is the case, as we contend, the phonetic method would lack uniformity, without which quality it can never become universal, for it would be wanting in that great requisite, stability. The next objection is more potent even than the last. It is the one raised to Dr. Haldeman's sixth rule. If all other difficulties are overcome "Spelling Reform," it seems to us, can never become a success, as long as one of its requirements is a change in the form of the familiar characters of our alphabet, which has stood such good service so many hundred years. It is not only a change, a superadded diacritical mark, but it is the addition of some dozen new characters that is proposed, when a cutting down of the number of the old ones would seem wiser. The reform that would soon commend itself to the English-speaking peoples, would be the dropping of all silent letters, where they appear in words now uniformly and universally pronounced without their aid. This would be a conservative reform and one that could not meet with reasonable opposition. The importance of the subject and the deep interest taken in it by Dr. Haldeman, must be our excuse for this brief digression.

Dr. Haldeman, was always much interested in education and made a constant crusade against the erroneous statements so often present in educational literature, exposing them in print and from the rostrum. On one occasion at a meeting of educators at Altoona,

Pa., some one present recommended Harper's Willson's Readers. when Dr. Haldeman, off-hand, made some remarks pointing out their general inaccuracy. Subsequently he published Notes on Harper's Willson's Readers (1870), a most scathing review, designed to show the injurious effects of placing such inexact matter in the hands of the young—it being much worse to teach them wrong than not to teach them at all. Of a similar character was his Quackery in American Literature and American Dictionaries, both of which originally appeared in the Southern Review, to which he was a constant contributor. As a relaxation from severe mental strain, Dr. Haldeman, in 1864, daintily printed in a limited edition, Tours of a Chess Knight, which was designed to show how to perform by dictation and without seeing the chess-board, the problem of the Knight's Tour, in which a knight passes over the board, touching each spot but once. It contains one hundred and fourteen diagrams and is supplemented by a Bibliography of the Chess Knight's Tour, embracing sixty titles with explanatory notes. This booklet is inscribed with much propriety "To George Allen, author of the Life of Philidor," for whose unique chess-library, a single copy was printed on superior Dutch writing-paper, which was afterwards placed in the hands of those masters of the bibliopegic art, Messrs. Pawson and Nicholson of Philadelphia, who bound it superbly in the style of Grolier. In 1868, Dr. Haldeman, published his amusing Rhymes of the Poets by Felix Ago, which, although in the line of his phonological studies, was really thrown off as a pastime. It consists of specimens of false rhymes from one hundred and fourteen prominent writers, of the 17th, 18th and 19th centuries and some of the examples thus brought together are truly ludicrons. For recreation, he tried his own hand at versification and he has left in manuscript, two lengthy mock-heroic poems,— Flight of the Fishes and Rat and River: a Tale of the Ohio, -both of them written in the doggerel style.

Although always interested in archæology, Dr. Haldeman only became actively engaged in the study during the latter part of the year 1875. Having been ordered to take exercise for his health, he carried out an intention long contemplated of digging for Indian relics in what is now known as the Chickies Rock retreat. Here in a shallow cave, formed by the anticlinal axis of the rock, within the grounds of his own residence, he found the interesting

collection which he presented to the American Philosophical Society, and fully described in a paper read before that body, June 21, 1878. This monograph, On the contents of a Rock retreat in South Eastern Pennsylvania, has been published by the Society, since Dr. Haldeman's death, with fifteen large quarto plates. His remaining archæological contributions are On a Polychrome Bead from Florida, in the Smithsonian Report for 1877; Gleanings, in the American Antiquarian for July 1878; On unsymmetric arrow-heads and allied forms, in the American Naturalist for May 1879; and Stone Axes from British Guiana and Aboriginal I ottery in the Proceedings of the American Association for the Advancement of Science, 1880.

From the preceding pages it will be seen what a busy, active, earnest life Dr. Haldeman led from the very opening of his career and yet the story is only half told. He was chosen professor of Zoology in the Franklin Institute, Philadelphia, in 1842; Chemist and Geologist to the Pennsylvania State Agricultural Society, 1852; occupied the chair of Natural History in the University of Pennsylvania 1850 to 1853, and the same position in Delaware College, Newark, 1855 to 1858. When it was thought desirable, in 1869, to provide a chair of Comparative Philology in the University of Pennsylvania, Professor Haldeman was immediately chosen to fill it, and in 1876, the University conferred upon him the degree of Doctor of Laws. In addition to the duties entailed by these several professorships, he was an active member of many learned societies, as their publications fully attest, and he was complimented by honorary membership in a number of scientific bodies both in this country and in Europe. His published writings alone number over one hundred separate titles and these even do not show the whole amount of his literary work. He assisted in the preparation for the press of Lynch's Dead Sea Expedition, was for some time editor of the Pennsylvania Farmer's Journal and edited the department of Comparative Philology and Linguistics in Johnson's New Universal Cyclopædia, at the same time writing some score of articles for its pages. To him often were submitted also by the Smithsonian Institution, papers for examination and his opinion upon the expediency of their publication; and he has left behind him in manuscript, two complete philological works, one on Word-Building, now in press, and the other on English Prosody, which it is contemplated to publish hereafter.

Not only did Professor Haldeman freely devote his entire time to the investigation and development of his favorite studies, but he was equally generous with his money and collections in aiding others. To the Academy of Natural Sciences of Philadelphia, he presented the original shells figured in his *Freshwater Univalve Mollusca*, together with the remainder of the edition of the work, while to the Delessert-Lamarck Collection of Paris, he presented those figured in his French work on the genus *Leptoxis*. Since his death, to carry out his wishes, his large collection of aboriginal remains has been distributed among the Academy of Natural Sciences, the Smithsonian Institution, the Museum of Natural History, Central Park, New York, and the Linnæan Society of Lancaster, Pa., while his annotated dictionaries have been deposited with the Library Company of Philadelphia.

Dr. Haldeman made six visits abroad for purposes of recreation and study, travelling in England, Ireland, Wales and on the continent. He was full of anecdote and an excellent story-teller, and he would relate with great relish, how at a bal d'opera in Paris, under a mask, he talked with a Russian savant in all the principal European languages. His interlocutor in vain attempting to guess his nationality, at last informed him that he must be a Russian, but with sarcastic incredulity; whereupon, Dr. Haldeman repeated a verse in Russ, that made the other gasp with wonder when he was told that he was conversing with an American. He also travelled through most of the United States, often making extended tours in his own conveyance, for the purposes of observation and adding to his collections of natural history. Dr. Haldeman was fond of intercourse with his fellow-men and very generally availed himself of the opportunities, offered by the annual meetings of the learned bodies with which he was associated, to meet his co-laborers in the various departments of Science. It was on returning from one of these reunions that he was struck with the illness that proved his last. He had been in attendance at the meeting of the American Association for the Advancement of Science, held in Boston, towards the end of last August, when he read the two archæological papers before mentioned. On returning home, he complained of physical prostration, but could not be induced to lay all work aside and take the called-for rest. At last he succumbed and consented to remain in bed, but it was too late. This was on the morning of Friday, September 10th, 1880, and in the evening, at seven o'c'ock, he suddenly passed away. His death was occasioned by heart disease, to which he was hereditarily predisposed, and he died in communion with the Roman Catholic Church, having united himself with that sect late in life, after much consideration of the subject.

Dr. Haldeman was a wonderfully practical man for a student, and owing no doubt to the catholicity of his studies, had none of the narrowness so common among scientists. He delighted in communicating his varied stores of learning, either verbally or by letter, to the numerous applicants who sought from him light on hidden mysteries in science, and was possessed of an inexhaustible fund of quaint and comical out-of-the-way things, which he related in a manner as dry and humorous as the things themselves. He loved a joke, and the writer remembers to have seen an envelope sent by him through the mail, to the Collins Printing House of this city, directed to "Jayne's Hair Expectorant Street," with a bottle drawn between "Jayne's" and "Street," and some of the letters otherwise comically treated. He was free from all jealousies himself and seems to have been equally fortunate in not engendering jealousy in others, thus he had warm friends and admirers among his scientific brethren, even although they may have differed with him on scientific topics. He was an accomplished linguist and a sound and thorough worker in every field he ploughed, the great Agassiz saying of him "That man Haldeman has an idea behind every word he utters." We will conclude this memoir, in which we have endeavored to correctly portray the life and studies of one of our foremost students, by giving an appreciation of his philological acquirements from the pen of his friend Professor March. "Professor Haldeman was in erly life and by his mental constitution a scientist, and he took hold of the facts of speech in that spirit. He had a delicate ear and flexible organs of speech and could pronounce with ease the most unutterable savage vocables. His scientific habit enabled him to watch and describe the movements of the organs in producing all sorts of sounds, and to giv the fysical processes, or causes, of the changes in the sounds of words from age to age. He devoted much study to these subjects, seeking living speakers of every nation and tribe, and imitating and recording their peculiarities. He applied his knowledge of the laws of

letter-change to etymology—chiefly so far as I know, to the derivation of English words and affixes. His text books on that subject ar full of ingenious observation and careful scientific deduction.

"He was also a great reader of old English books in their erly editions, and he treasured in his memory the curiosities of spelling and pronunciation, the rimes and puns and the like, which he

found there.

"He busied himself also with the Pennsylvania Dutch, as it is called, and traced it to its sources in Europe. He read largely the German works on the science of language; but he was an independent observer, and more likely to be biasd by his critical temper than by absorption in any systems.

"He was a leader in these branches of study, and perhaps the most activ promoter in America of the use in our schools of the ancient method of pronouncing Latin and Greek. He will be missed by every one at the gatherings he so long enlivened and enlightened. We shall not look upon his like agen."

#### APPENDIX.

List of the scientific publications of Professor Haldeman, prepared by his daughter Mrs. Eliza Figyelmery.

#### CONCHOLOGY.

- 1. A Monograph of the Freshwater Univalve Mollusca of the U. S. Phila: 1845. 2 vols., 8mo. 40 copper plates, with elaborately finished colored figures.
- 2. Monographie du genre Leptoxis (Anculosa Say,) Paris: 1847. With 5 plates folio, including 170 colored figures. Forming part of Chenu's magnificent Illustrations Conchyliologiques.
- 3. On the Freshwater Mollusca common to Europe and America, including theoretical observations upon species and their distribution. Prepared at the request of the American Association for the Advancement of Science, and published in the "Boston Journal of Natural History," 1844.
- 4. On the Habits and Characters of the Melanians of Lamarck. In this paper the true characters of this family are given for the first time. "Silliman's Journal," vol. 41, p. 21.
- 5. New Species of Cyclas. Proceedings of the Academy of Natural Sciences of Phila., 1841.
- 6. New species of Fluviatile Shells. Journal of the Academy of Natural Sciences, vol. 8, 1842.
- 7. On Unio Viridis. Proceedings of the Academy of Natural Sciences 1841, vol. 1, p. 104.
- 8. Experiment in Transplanting Unio from the Ohio to the Susquehanna. Proceed. Acad. Nat. Sciences, 1. 104; 3, 15.
  - 9. Description of Unio abacoides. Proceed. Acad. Nat. Sciences, 1846.
- 10. Strepomatidæ, as a name for a family of fluviatile mollusca, usually confounded with Melania. Proc. Acad. Nat. Sc., Sept. 1863, p. 272.

#### ENTOMOLOGY.

- 11. Catalogue of the Carabideous Coleoptera of southeastern Penna. Proceed, Acad. Nat. Sciences, 1843, p. 295.
  - 12. 50 new species of Colooptera, chiefly Carabidæ, id.
  - 13. 10 new insects, id. 11, 53.
  - 14. 7 new Aphides. Proceed. Boston Soc. Nat. Ilis., 1844.
- 15. Materials toward a Hist, of the Coleoptera Longicoinia of the U. S., including many new species. American Philosophical Trans., 1847.
  - 16. Additions and corrections to the preceding. Proceed. Am. Phil. Soc. 1847.
- 17. N. American Coleoptera, chiefly in the cabinet of Dr. Le Conte. Jour. Acad. of Nat. Sciences, 1848. Containing about 40 new species.
- 18. On Cecidomyia robinize, a new species of "hessian fly," which destroys locust trees. Quarterly Journal of Agriculture, Oct., 1847.
  - 19. Melsheimer's Catalogue of Coleoptera of United States. Washington, 1853.

- 20. On several new genera and 16 new species of insects. Proceed. Acad. Nat. Sciences, vol. 3. p. 124, 140, 348.
- 21. On a new organ of sound in Lepidoptera. Am. Journ. Sci. Silliman, N. S., vol. 5, 435 &c., 1848.
  - 22. On insects common to the U. S. and New Mexico, id. 1848.
  - 23. On the occurrence of certain insects in ants' nests, and of chelifer, &c., id. 1848.
- 24. On the occurrence of Evania in various parts of the world, carried by the cockroach, which infects ships, and upon which it is parasitic. Am. Asso. Adv. Sc., 1847.
  - 25. History of Agrilus ruficollis. Am. Jour. Agriculture, Oct. 1846.
- 26. Cryptocephalinarum Boreali. Americæ diagnoses, cum speciebus novis musei Lecontiani. 21 pages quarto, Journ. Acad. Nat. Sci., 1849.
- 27. New species of Hymenoptera, of the genera Ampulex, Sigalphus, Chelonus Dorylus (the last from Africa,) Proceed. Acad. Nat. Sciences, vol. 4, p. 203, 1849.
  - 28. Report on the paper of Dr. Savage on the driver ants. id. IV, 200.
- 29. History of transformations of Covydalus cornutus. Journ. Amer. Acad. Arts and Sci., Boston, 1848.
- 30. History of Phalangopsis, a genus of Orthoptera, with three new species, two of which form a new sub-genus. American Association, Adv. Sc., 1849, p. 346.
  - 31. On the larva of Physocoelus ir flatus. Id., 1849, p. 347.
- 32. On four new species of Hemiptera of the genera Ploiaria, Chermes and Aleurodes, and two new Hymenoptera parasitic in the last named genus. Silliman's Journa!, Jan. 1850, p. 108—111.
  - 33. Zoology of the Valley of the Great Salt Lake. Insects. Utah, 1852.

#### ARACHNIDÆ.

- 34. Four new species of Hydrachna. Proceed. Acad. Nat. Sci. 1, 184 and 196.
- 35. Nine new species of Hydrachnidæ. Zoological contributions, No. 1, 1842.

#### CRUSTACEA.

- 36. On five new species of Cypris. Proc. Acad. Nat. Sc., 1, p. 53, 166, 186.
- 37. On a new species of Cyclops. Journ. Acad. Nat. Sc., VIII., 1842, 331.
- 38. On two new species of Daphnia. Proc. Acad. Nat. Si., 1, p. 184, 196.
- 39. Limnadia corinacea, a new species. Id. p. 184.
- 40. Apus affinis, a new species from the Sandwich Islands. Am. J. Agr. 1847.

### ANNELIDES AND WORMS.

- 41. Clepsina scelra, a new species of leech. Monogr. of Univ. Shells.
- 42. Planaria gracilis. The first species discovered in this country. Proceed Amer. Asso. Adv. Sc., 1849, p. 398.
  - 43. Crearia bil neata an l hyalocauda. id.
- 44. On two new species of Tubifex, observed at Pittsburgh, and not before known as American. Journ. Acad. Nat. Sc., 1842.
  - 45. On Hydrolimax, a new genus of worms. Proc. Acad. Nat. Sc., 1842.
- 46. On the occurrence of a large species of Filaria in a species of spider (Lycosa). Proceed. Am. Phil. Soc 1847. Afterwards inserted in the 1conographic Encyc. This is the first discovery of the kind among the spiders.

#### GEOLOGY AND CHEMISTRY.

- 47. On Scolithus Linearis, a new genus and species of fossil plant, probably the most ancient fossil known. Supplement to Monograph. 1840. Since figured in Hall's Paleontology of New York.
  - 48. On Aeonia ebonina a new species of trilobite. Am. and Agr. October, 1847.
  - 49. Re, ort to the American Association on certain trilobites. Id. October, 1847.
- 50. On a perfect American specimen of the trilobite Phacops hausmannii, American Association, Advancement of Science 1848.
- 51. Analysis of a mineral concretion from the greensand of New Jersey. Journ. Acad. Nat, Sci. 1839.
  - 52. On the artificial production of stypnite Hald. Proc. Acad Nat. Sci. IV. p. 5.
  - 53. On the preservative qualities of copper. 1'roc. Acad. Nat. Scl. 1. 2.

#### PHILOLOGY.

- 54. System of Phonography. Linnean Record of Pennsylvania College. Vol. 1, pp. 218-221. 1845.
- 55. On the natural order of the articulate sounds of the human voice. Linnean Record of Pennsylvania College. 1I. pp. 172-175. 1846.
  - 56. On the nature of Diphthongs and the Formation of Syllables. id. 1847.
  - 57. On the Phonology of the Wyandots. Proc. Am. Phil. Soc. IV, 268. 1846.
- 58. On some points in Linguistic Ethnology, with illustrations chiefly from the Aboriginal languages of America. 1849. Proceed. Amer. Acad. Arts and Sciences Boston. Vol. 2, pp. 165-178.
- 59. Elements of Latin Pronunciation. Philadelphia: Lippincott, Grambo & Co., 1851, 12mo. pp. 76.
- 60. The Etymological Argument. A reply to the objection that "Phonetics deprive us of the means ov determining the etymology of words which the old spelling affords." Fonetic Advocate, Sinsinati, Novembur 16, 1850.
- 61. Investigation of the Power of the Greek Z, by means of Phonetic Laws. Proc. Am. Asso. Adv. Sc. 1853.
- 62. Analytic Orthography (Trevelyan Prize Essay,) an investigation of the sounds of the human voice, etc. J. B. Lippincott & Co., Philadelphia, 1860. 4to. pp. viii. 148.
- 63. Affixes in their Origin and Application. E. H. Butler & Co., Philadelphia, 1865; second edition, 1871. 12mo. pp. 292.
- 64. Outlines of Ety.nology. J. B. Lippincott & Co., Philadelphia, 1877. 12 pp. 113.
  - 65. Word Building. In press. J. B. Lippincott & Co., Philadelphia.
- 66. Pennsylvania Dutch, a dialect of South German with an infusion of English. Read before the Philological Society of London, June 3, 1870. Published by the Reformed Publication Board, Philadelphia. 1872. 12mo. pp. viii, 69.
- 67. The Etymologic objection to the spelling reform. Proceedings of the National Educational Association, 1879. p. 267.
- 68. On a supposed neutation between L. and U. Transactions American Phile-logical As-ociation, 1876.
- 69. Relations between the Chinese and the Indo-European languages. Proceedings American Association, 1856. Adv Sci. pp. 201-213.
- 70. Report on the present state of our knowledge of Linguistic Ethnology. Proceedings American Association for the Advancement of Science, 1856.

- 71. Notes on Etymology. Penna. School Journal, May, 1874.
- 72. Etymology as a means of Education. Read before the State Teachers' Association of Pennsylvania. Published in the Pennsylvania School Journal, October, 1868.
- 73. On an English consonant mutation present in Proof, Prove. Transactions American Philological Association, 1875.
- 74. On an English vowel mutation present in Cag, Keg. Transactions American Philological Association, 1874.
- 75. Review of Prof. Blair's Latin Pronunciation. Southern Magazine, October, 1873.
- 76. Review of Prof. Shepherd's History of the English Language. Southern Magazine, January, 1875.
- 77. Review of Prof. Fisher's three pronunciations of Latin. Stoddart's Review, 1880.
- 78. On several points on the Pronunciation of Latin and Greek. Wisconsin Academy of Sciences, Arts and Letters, 1873. Vol. 2.
  - 79. Virgil's Hexameters. Transactions American Philological Association, 1878.
- 80. On the Pronunciation of Latin as presented in several recent grammars. Transactions American Philological Association, 1873.
  - 81. American Dictionaries. Southern Review, July, 1869. pp. 34-69.
  - 82. Northern Geographies. Southern Review, January, 1869.
  - 83. School Readers. Southern Review, April, 1868.
  - 84. Quackery in American Literature. Southern Review, January, 1868. pp. 16.
- 85. On the German Vernacular of Pennsy vania. Transactions American Philological Association, 1869-70.
  - 86. Historic Spelling. Bulletins Spelling Reform Association, 1877-85.

#### ARCHÆOLOGY.

- 87. On unsymmetric arrow-heads and allied forms. American Naturalist. May 1879. pp. 292-294.
  - 88. On a polychrome bead from Florida. Smithsonian Report, 1877. pp. 302-305.
  - 89. Gleanings. American Antiquarian, vol. 1, No. 2, 1878. pp. 77-81.
  - 90. Stone axes from British Guiana. American Association, Adv. Sc. 1880.
  - 91. Remarks on Aboriginal pottery. American Association, Adv. Sc. 1880.
- 92. On the contents of a Rock Retreat in South-eastern Pennsylvania. Transactions American Philosophical Society, vol. XV, pp. 351-368.
- 93. Chickies Rock Retreat. Compte-rendu de la Société des Américanistes. Vol. 2. pp. 319-327. Plate.

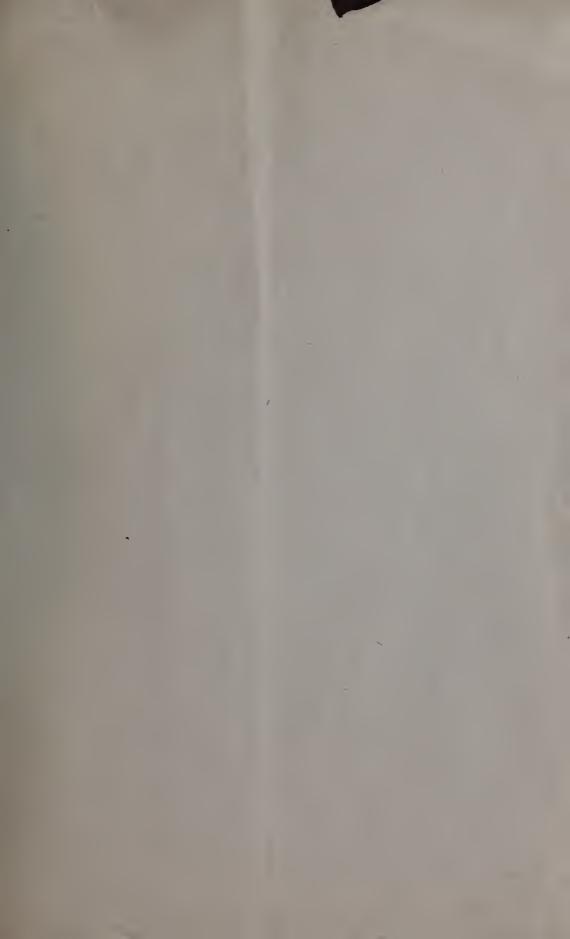
#### MISCELLANEOUS.

- 94. Zoology of the invertebrate animals (Entomology, Conchology, and Radiata,) in the Iconographic Encyclopædia, New York, 1851.
- 95. Anatomical examination of salamandra, erythronota and cinerea; showing them to be distinct species. Proceedings Academy of Natural Sciences, 1847, III., 315.
- 96. On several fishes of the Susquehanna. Journal Academy of Natural Sciences, VIII., 330, and supplement to monograph (coltus viscosus). See American Association, Adv. Sc. 1849, p. 411.

- 97. On some facts in ornithology. Proceedings Academy of Natural Sciences, 1, 54.
- 98. Proposal to substitute the name Hypodon for Diodon as a genus of cetacea. Proceedings Academy of Natural Sciences, 1, 127. Other substitutions in Entomology, id., p. 191, 1842.
- 99. Sketch of the natural history (including geology) of Lancaster County, Penna., 1844. Rupp'- History of the Co., Chapter XIII.
- 100. Outline of the Zoology of Pennsylvania. In Trego's Geography of the State, 1843, pp. 75–83.
- 101. On the impropriety of using vulgar names in Zoology. Zoological Contributions, No. 2, 1843, pp. 7-34.
- 102. On the arrangement of insect cabinets to indicate geographical position by colored labels. Zoological Contributions. No. 3, 1844, pp. 35-40. Map.
  - 103. Results of smelting Iron with Anthracite. Silliman's Journal, Vol. 5, p. 2;6.
- 104. On the construction of furnaces to smelt iron with Anthracite. Id., July, 1848.
- 105. On the apparent projection of a planet upon the moon's disk during an occultation. Proceed, Am. Phil. Soc., 1847.
- 1c6. Introductory Lecture to a course on Zoology before the Franklin Institute Philadelphia, 1842.
- 107. Address upon laying the corner-stone of the Linnean Hall of Pennsylvania College, Gettysburg, July 23, 1846. pp. 12.
- 108. Notice of the Zoological writings of Rafinesque. Silliman's Journal, 1842 Vol. 42, p. 280.
  - 109. On Zoological nomenclature. Silliman's Journal, 1843, vol. 46, p. 18.
- 110. On the chromatograph, a modification of the chromatic wheel of Newton. American Association, Adv. Sc. 1847.
  - III. On an electrical phenomenon. Silliman's Journal, vol. 46, p. 215.
- 112. Report on the Progress of Entomology in the United States during the year 1849, by the chairman of the entomological committee. Proceed. Acad. Nat. Sci., 1850, vol. 5, p, 5.
  - 113. Modern Spiritism. Penn Monthly, Nov., 1877, p. 835.
  - 114. Notes on Willson's readers, 1864. Revised Edition, 1870. 12 mo., pp. 36.
  - 115. Rhymes of the Poets. E. H. Butler & Co. Phila., 1868. 12 mo., pp. 56.
  - 116. Tours of a Chess Knight. E. H. Butler & Co., Phila., 1864. 16mo., pp. 42.
  - 117. Memoir of John M. Keagy, M. D, Penna. School Journal, June, 1875.
  - 118. Refutation of Locke's Moon Hoax. Lancaster Journal, 1835.
  - 119. Edited Taylor's Statistics of Coal, 1855. .
  - 120. Edited Pennsylvania Farm Journal, 1851-52.
- 121. Associate Editor of Johnson's Cyclopædia, and author of articles in it on Metre, Norman French, Participle, Particle, Pennsylvania Dutch, Pronunciation of Greek, Pronunciation of Latin, Prosody, Quantity, Rhyme, Rhythm, Roman Arithmetic Scotticisms, Verb, Vowel, Word.
  - 122. Various bibliographical notices in Silliman's Journal.
- In the foregoing list several articles are sometimes thrown together, as in nos, 5, 12, 20, 21, 22, 34, 36, etc.

# LITERARY HONORS.

LIST OF SOCIETIES OF WHICH PROFESSOR HALDEMAN WAS A MEMBER. Academy of Natural Sciences, Philadelphia, 1837. American Academy of Arts and Sciences, Boston, 18-0. American Association for the Advancement of Science. 1844. American Ethnological Society, New York. American Oriental Society, New Haven. 1857. American Philological Association. 1869. American Philosophical Society, Philadelphia. 1844. Association of American Geologists and Naturalists. 1842. Boston Society of Natural History. 1840. Buffalo Society of Natural Sciences. 1865. Entomological Society of Pennsylvania. 1842. Entomological Society of Philadelphia. 1859. (Became the American Entomological Society, 1867.) Entomological Society of Stettin, Prussia. 1839. Imperial Economic Society of St. Petersburg, Russia. 1857. Maryland Historical Society, Baltimore. 1857. National Academy of Sciences, Washington. 1876. National Institute for Promotion of Science. 1840. Natural History Society of Nuremberg. 1849. New York Historical Society, 1850. New York Lyceum of Natural History. 1846. Numismatic and Antiquarian Society of Philadelphia. 1871. Pennsylvania Agricultural Society. 1852. Pennsylvania Historical Society. 1846. Spelling Reform Association, 1876. Société Cuvierienne, Paris. 1842. Société des Américanistes, Belgium. 1876. Wisconsin Academy of Sciences, Arts and Letters. Wisconsin Historical Society, Madison. 1854.





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